party vendor that conducted SWBT's original OSS testing, is conducting limited follow-up to its original testing.

Many of the major issues fleshed out in the SWBT 271 proceeding were negotiated in accordance with other provisions of the FTA, discussed in the following subsection of this chapter.

## FTA Sections 251 and 252

### *Arbitrations and Dispute Resolution*

Under Section 252 of the FTA, an ILEC and a telecommunications carrier have two options for securing an interconnection agreement. The first option is that an agreement may be arrived at through voluntary negotiation between the two parties. When two parties reach agreement on their own, FTA §252(a)(1) requires that the negotiated agreement be submitted to the state commission. Between September 1, 1998 and December 31, 2000, 756 negotiated interconnection agreements were filed at the Commission. The second option is for an ILEC and a telecommunications carrier to request compulsory arbitration, if the parties are not able to reach agreement on any or all of the rates, terms and conditions in an interconnection agreement.[29] FTA §252(b) places responsibility for such arbitrations on state commissions. During the same above period, twenty-eight requests for arbitration and twenty-eight post-interconnection disputes were filed at the Commission. FTA Section 251 contains many of the overarching guidelines relevant to the arbitration of interconnection agreements.

The arbitration of interconnection agreements is a top priority for the Commission. The Commission's first step to comply with the FTA Section 251 mandate to open local markets began when five would-be competitors of SWBT filed for arbitration of interconnection issues in 1996. The Commission consolidated the proceedings and completed the initial and primary arbitration just prior to the issuance of the *1997 Scope Report*. Decisions on additional issues were made in the second phase of the arbitrations. The results of these consolidated proceedings, known as the "mega-arb," provided the foundation for many more arbitrated agreements this biennium.

Following is a description of a few high profile arbitrations that resulted in precedential decisions on interconnection issues during the 1999-2000 biennium.

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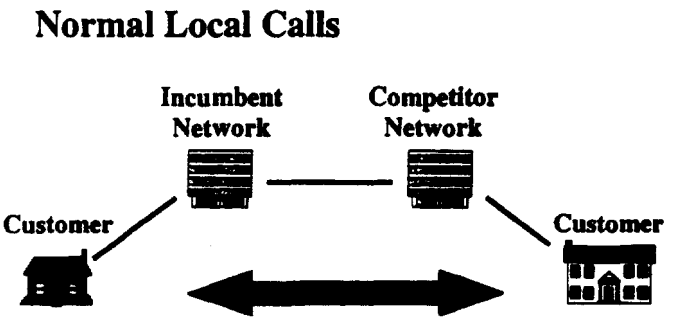
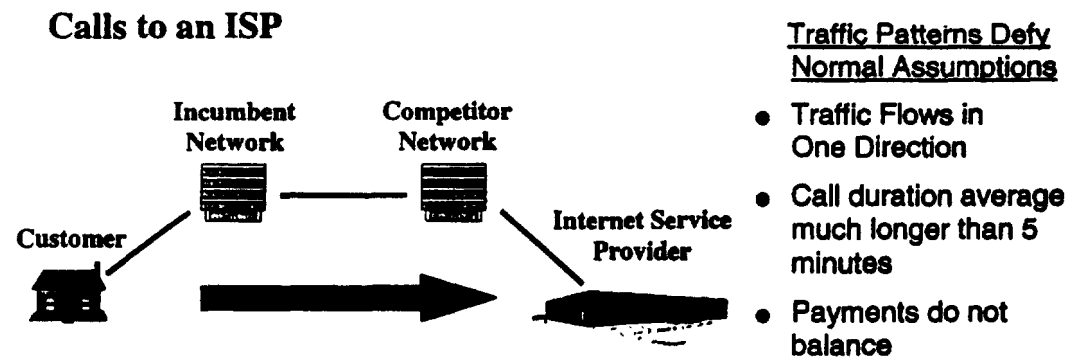
[29] Pursuant to FTA authority, the Commission promulgated procedural rules for dispute resolution and approval of agreements. The rules set out procedures for mediation, compulsory arbitration, the review and approval of both negotiated and arbitrated interconnection agreements, and post-interconnection disputes. A proceeding filed pursuant to the FTA and/or the Commission's dispute resolution rule is not considered a "contested case" under the Texas Administrative Procedures Act. Disputes that arise after parties have entered into an interconnection agreement may be filed at the Commission pursuant to the procedures set out in Subchapter Q of the Commission's procedural rules. The rules provide various options for seeking resolutions of disputes, including informal settlement conferences, formal dispute resolution, expedited final rulings, and interim rulings.

## RECIPROCAL COMPENSATION

When a customer of one local company calls the customer of another local company, compensation has traditionally been paid to the second company for use of its network to complete the call. This reciprocal compensation was reasonably balanced when phone customers were making local voice calls with approximately equal duration. However, it became an issue for Internet calls because these calls tended to be all incoming calls, and tended to be of long duration. Some CLECs saw an opportunity to profit from the peculiar nature of Internet traffic. The ILECs objected to paying compensation for these non-traditional calls.




The core issue regarding reciprocal compensation this biennium was whether local calls to access the Internet should be considered interstate in nature and, therefore, not subject to reciprocal compensation, or whether such calls should be considered local and, therefore, subject to reciprocal compensation. The Commission determined that

local calls to access the Internet are local calls subject to reciprocal compensation.[30] Additionally, the Commission decided other major issues, as outlined below.

The FTA provides that local telephone companies must compensate each other for terminating each other's local telephone calls. The FTA also requires that a determination be made by state commissions of the just and reasonable rates for local interconnection. Therefore a determination as to whether calls to the Internet are local or not is key. ILECs contend that Internet-bound traffic is not local traffic, as it does not terminate at the ISP server, and is therefore not subject to reciprocal compensation as local traffic under the FTA. CLECs, however, contend that Internet-bound traffic does terminate at the ISP server, making such calls local in nature.

In February 1999, the FCC determined that ISP-bound calls are predominantly interstate calls and not subject to reciprocal compensation under the FTA. Earlier this year, the United States Court of Appeals for the District of Columbia Circuit vacated the FCC's determination that Internet traffic is not subject to reciprocal compensation. The court remanded the case to the FCC for want of a better explanation of its reasoning. The FCC then ruled that, pending adoption of federal rules governing compensation for Internet traffic, state commissions may determine appropriate compensation for the termination of Internet calls. During this interim period, state commissions are free to require or not require compensation for Internet traffic. As stated previously, the Commission requires reciprocal compensation for Internet traffic.

In January of 2000, the Commission initiated a proceeding to thoroughly examine the policies, practices, procedures, rules, and rates applicable to reciprocal compensation pursuant to Section 252 of the FTA. It consolidated requests to arbitrate reciprocal compensation for the transport and termination of local telecommunications traffic between SWBT and CLECs desiring arbitration and interconnection.[31] The commission issued decisions on four major issues for which an extensive record was developed. The issues included the types of telecommunication traffic that should be subject to reciprocal compensation, the method to be used to determine intercarrier compensation, the rates that should be charged, and the appropriate method for billing all calls defined as local calls. On August 31, 2000, the Texas Commission released its Revised Order adopting new rate structure and rate levels for reciprocal compensation payments.[32]

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[30] *Complaint and Request for Expedited Ruling of Time Warner Communications*, Docket No. 18082, Order (Feb. 27, 1998).

[31] *Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996*, Docket No. 21982.

[32] Included in the Revised Order are the following rulings: 1) SWB will pay CLECs a 'tandem blended rate' for all "balanced" traffic within the 3:1 ratio; 2) the blended rate would be based on a bifurcated end office rate plus 42% of the sum of tandem switching and inter-office transport costs; 3) a bifurcated end office rate only will apply to out-of-balance traffic (over a 3:1 ratio); 4) upon determination of actual tandem or tandem-like functionality, the terminating carrier will receive, on a going forward basis, compensation in the range of 0% to 100% of the tandem rate. This rate shall prospectively apply to all traffic terminated on the terminating carrier's network, *i.e.*, traffic occurring before and after the 3:1 ratio; 5) SWBT may charge full tandem-served rate for traffic delivered to its tandems; 6) billing will be based on terminating records where available, and where not available, the terminating carrier will use a method agreed to by the parties; and 7) compensation is not due for FX-like traffic, or 8YY traffic.

## DIGITAL SUBSCRIBER LINE SERVICE (DSL)

One of the stated goals of the FTA and the Texas Legislature is to foster availability of advanced services to all customers. One technology for providing advanced services is DSL. In an arbitration proceeding, the Commission established the terms and conditions for competitors to have access to SWBT network components necessary for them to offer competitive DSL. The award, issued in late 1999, together with an FCC decision to allow collocation of equipment in incumbent's offices was critical to making DSL available as a competitive offering.

## LINE SHARING

In another precedential arbitration, the Commission determined that competing carriers may provide some DSL services to the same customer on the same copper loop facility used by the ILEC to provide voice telephone service to that customer. This technological advance is possible because some DSL services operate on separate and higher frequencies of the electromagnetic spectrum than voice services. In recognition of this fact, the FCC declared the high frequency portion of the loop to be an unbundled network element under FTA §251(c)(3). The arbitrator issued an order in June 2000 on the interim rates, terms and conditions. The Commission is currently arbitrating the rates, terms and conditions under which DSL providers may access the high frequency portion of the loop UNE on SWBT's and Verizon's networks.

## RURAL EXEMPTION FROM FTA SECTION 251 INTERCONNECTION REQUIREMENTS

Nearly all of the smaller ILECs in Texas are exempt from the FTA's interconnection requirements. As stated in FTA § 251(f)(1)(A), the requirements do not apply to a rural ILEC until it has received a bona fide request from a competitor and the state commission determines that the request should be granted. Most of the smaller ILECs in Texas qualify for this exemption under one or more of the following criteria: (1) the company serves fewer than 50,000 access lines; (2) it serves incorporated areas of fewer than 10,000 inhabitants; (3) it serves a study area of under 100,000 access lines; or (4) it has under 15 percent of its access lines in communities of more than 50,000 as of February 8, 1996, when the FTA was enacted. This exemption means entry into a number of areas of Texas can involve extra difficulties and therefore is a barrier to the development of competition in rural areas of Texas.[33]

[33] FTA § 3(a)(47). FTA § 251(f)(2) also allows a LEC with less than two percent of the nation's access lines to petition the state commission for suspension or modification of the requirements of FTA § 251(b)-(c). In addition, PURA § 60.004 exempts ILECs with fewer than 31,000 access lines in Texas from having to comply with certain competitive safeguards dealing with unbundling, resale, and interconnection unless a certificated competitor submits a bona fide request to the ILEC.

## Senate Bill 560 – Pricing and Packaging Flexibility

Senate Bill 560 (SB 560)[34] grants large ILECs new pricing and packaging flexibility and introduces new customer service protections. SB 560 placed the services offered by certain ILECs into two categories, including basic network services and nonbasic services, capped rates for certain services, extended incentive regulation for electing companies,[35] reduced in-state long distance access charges, required easy-to-read bill formats and established customer protection rules.

Pricing flexibility is an important benefit to ILECS as customer choice and competition develop in the market. Pricing flexibility includes customer specific contracts, volume, term or discount pricing, zone density pricing, and other forms of promotional pricing.

The Commission adopted extensive new rules to implement the pricing provisions of SB 560. The new rules:

- Establish pricing standards for flexible pricing of services, including individual services and packages of services;
- Give ILECs guidelines for the introduction of customer-specific contract pricing;
- Provide incentives for electing companies to introduce new, innovative services by expediting the process for such introduction;
- Implement competitive safeguards to protect competitors from anti-competitive practices that might result from packaging regulated services with unregulated services, particularly unregulated services provided by an affiliate of an ILEC;
- Require that a service be priced above its long run incremental cost;
- Provide a procedure for establishing the long run incremental cost of a service offered by small ILECs;
- Establish guidelines for separately tariffing services that are offered as part of a package; and
- Provide guidelines to implement certain rate increases requested by an ILEC.

Under SB 560, ILECs must give the Commission ten days notice before changing their prices. This notice offers customers, competitors and the Commission an opportunity to comment on the actions taken by the ILEC. The Commission staff evaluates all such notices. The price of a service must be above the long run incremental

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[34] Senate Bill 560, 1999 R.S., was authored by Senators David Sibley and Troy Fraser and Representatives Toby Goodman and Leticia Van de Putte.

[35] Electing companies are companies that elect incentive regulation pursuant to Chapter 58 of PURA (SWBT and Verizon) or Chapter 59 of PURA (Sprint/Centel, Sprint/United, Century of San Marcos, TXU Telecommunications, Sugar Land Telephone Company, Valor Communications, and Fort Bend Telephone Company).

cost of providing the service. If prices are above their long run incremental cost, they are presumed not to be predatory. The Commission received more than 200 such notices from September 1, 1999 to August 31, 2000. In the same time period, only four complaints have been filed with respect to the new price/service notices.

## Senate Bill 86 – Customer Protection Standards

### *Implementation Process*

As directed by Senate Bill 86[36] (SB86) from the 76th Texas Legislature, the Commission rewrote its existing customer protection rules to complement the new, competitive environment. Key issues addressed were:

(1) the applicability of rules to dominant and non-dominant certificated telecommunications utilities;

(2) emerging issues, such as failure of non-dominant providers to release lines;

(3) discrimination protections;

(4) prohibition of fraudulent, unfair, misleading, deceptive, and anti-competitive practices; and

(5) information disclosures.

Dominant certificated telecommunications utilities proposed, with the support of consumer groups, that the customer service and protection rules apply equally to all certificated telecommunications utilities, on the theory that uniform rules encourage reluctant customers to participate in the market.

Non-dominant certificated telecommunications utilities favored bifurcated rules with less restrictive requirements for themselves, on the basis that uniform standards would create substantial burdens and costs for non-dominant carriers, thus inhibiting competition.

The Commission adopted rules to provide strong protections for all customers, while allowing flexibility for non-dominant certificated telecommunications utilities to encourage increased competition. This approach reflected a belief that informed customer choice is essential to ensure that a highly competitive local telecommunications market will benefit all customers.

### *Slamming*

The Commission continues to take a strong stance in combating slamming by strengthening its anti-slamming substantive rules, continuing to thoroughly investigate each slamming complaint, and taking enforcement action on slamming violators.[37]

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[36] Senate Bill 86, 1999 R.S., was authored by Senator Jane Nelson and Representative Debra Danburg.

[37] Slamming occurs when a telephone customer finds that his/her telephone service provider has been changed without his/her consent.

Slamming distorts the competitive telecommunications market because it rewards a company that changes customers' telephone services without their approval, unfairly increasing its customer base at the expense of companies that market in a lawful manner. Further, it takes the freedom of economic choice away from the customer. Customers often choose goods and services based upon cost and company reputation. Slamming removes such decision-making from the customer through fraudulent means.

The PUC modified its Substantive Rules to implement SB 86. The amendment to P.U.C. SUBST. R. § 26.130 (1) eliminates the distinction between carrier-initiated and customer-initiated changes, (2) eliminates the information package mailing (negative option) as a verification method, (3) absolves the customer of any liability for charges incurred during the first 30 days after an unauthorized telecommunications utility change, (4) prohibits deceptive or fraudulent practices, (5) requires consistency with applicable federal laws and rules, and (6) addresses the related issue of preferred telecommunications utility freezes.

Slamming complaints received by the Commission declined 52% from their Fiscal Year 1999 level to a total of 1952 complaints in Fiscal Year 2000.

### *Cramming*

On October 21, 2000, the Commission adopted P.U.C. Subst. R. § 26.32, Protection Against Unauthorized Billing Charges ("Cramming"), to implement the provisions concerning unauthorized charges on telephone bills as set forth in SB86. The rule applies to all "billing agents" and "service providers." The rule includes requirements for billing authorized charges, verification requirements, responsibilities of billing telecommunications utilities and service providers for unauthorized charges, customer notice requirements, and compliance and enforcement provisions. The rule ensures protection against cramming without impeding prompt delivery of products and services, minimizes cost and administrative requirements, and ensures consistency with FCC anti-cramming guidelines.

Cramming complaints received by the Commission rose slightly, to a total of 1713 in Fiscal Year 2000.

## Other Regulatory Activity

The Commission addressed other competitive market issues, as well. Fairness in costs facing all providers, whether established companies or new entrants, is another aspect of market structure that is essential to local competition, and one with which the Commission was charged with specific implementation duties last session, as follows.

### *HB 1777 – UNIFORM COMPENSATION METHOD FOR USE OF MUNICIPAL RIGHTS OF WAY*

Telecommunications companies should find it easier to enter new markets in Texas now that the calculation of city franchise fees for use of municipal rights-of-way

are uniform statewide. With the passage of HB 1777,[38] the 76th legislature took a new step to level franchise fees within each city in Texas and thereby help stimulate competition in the telecommunications industry. The legislature charged the Commission with implementation of the bill.

Historically, telecommunications companies have paid franchise fees to cities for the use of public rights-of-ways based upon individually negotiated franchise agreements. The majority of those fees were based on a percentage of the telecommunication provider's gross revenues, while others were a flat rate, a per foot charge, or a per line charge. HB 1777 required that the Commission establish rates for each city in Texas, by March 1, 2000, for public right-of-way use based on a fee-per-access line method. The Commission developed rates for about 1110 incorporated municipalities in Texas.

This uniform method to compensate cities for public right-of-way use gives no provider an advantage over another, an important component of a healthy competitive marketplace. It also assures that cities' prior revenue base is protected under the new method. HB 1777 strikes a balance between the interest in ensuring fair and reasonable compensation and the need to encourage competition and reduce barriers to entry by developing a franchise fee methodology that is competitively neutral and non-discriminatory.

Beginning March 1, 2000, franchise fees in Texas have been based on these fee-per-access line rates. Each city is compensated by an amount equal to the number of lines by category in a city multiplied by the access line rate (chosen by the city and applied uniformly to every telephone service provider operating in that city) for each category in that city. Rate development took into consideration the number of residential, business and point-to-point customers in each city. Certificated telecommunications providers are required to compensate municipalities four times per year, based upon quarterly access line counts sent by telecommunications providers to the PUC. The commission has assigned an HB 1777 implementation coordinator to assist cities on an ongoing basis. The cities' ongoing work includes updating their access rates through an annual revision mechanism, establishing contacts between cities and providers to ensure fair and timely compensation, and preparing a quarterly line count to verify the accuracy of the compensation.

In the wake of implementing HB 1777 (*See* Chapter 2 of this *Report*), parties, including both telecommunications service providers and municipalities, have brought forward several remaining issues for further attention. The commission initiated Project Number 22909 to address the following outstanding issues related to HB 1777 implementation:

(i) The first issue is the need to distinguish between fees that are solely attributable to the use of Right-of-Way (ROW) (prohibited by HB 1777) versus fees that apply to any entity conducting similar activities within a city.

(ii) Another pending issue relates to telephone lines that pass through a city but do not provide services or have customers in that particular municipality. Telecommunications providers assert that no compensation should be required for

[38] HB 1777 was authored by Rep. Steve Wolens and Sen. Eddie Lucio.

lines that simply pass through a city. Cities contend that pass-through lines are outside of HB 1777 and subject to other compensation. HB1777 measures compensation by end use customers.

(iii) A third issue relates to compensation requirements for certificated telecommunications providers (CTPs) providing lines that do not meet the definition of "access line" (*i.e.* data or media lines). Cities maintain that compensation is required for the use of right-of-way and, therefore, other lines are subject to other forms of compensation

(iv) Fourth, a rule suggesting or requiring the existence of a city ordinance regarding right-of-way management issues may be prudent.

Commission staff conducted a discovery workshop and is reviewing briefs as a prelude to a draft rule. The Commission intends to publish the draft rule for comments in January 2001, which would be scheduled for final adoption in March. If the Commission finds that the best resolution for any of these issues would require legislative attention, it will communicate its recommendation to the legislature during the 2001 legislative session.

## OTHER DEVELOPMENTS THIS BIENNIUM

Details essential for local competition were worked out in a number of niche market and technical areas, all subject to regulatory parameters. For example, the FCC mandated the implementation and deployment of advanced emergency capabilities of enhanced 911 systems that are generally available to wireline customers (*see* Appendix C). Revisions to rules were necessary to implement legislation pertaining to competition in the payphone industry, which was deregulated by the FCC in 1996 (*see* Appendix D). Activities concerning area codes, number pooling, and N11 prefixes have necessarily continued as the competition environment develops (*see* Appendix E).

Additionally, the Commission took steps to ensure service quality. On April 12, 2000, the Commission adopted P.U.C. SUBST. R. § 2 6.54 relating to *Service Objectives and Performance Benchmarks*. The new rules, effective August 1, 2000, provide for enhancing the current standard for data transmission capability over public switched voice circuits, when connected through an industry standard modem or a facsimile device, to 14.4 Kbps by the end of 2002. The rules provide for enhancing the performance level for certain benchmark measures, including directory assistance, business office, and operator services. Further, installation intervals for service orders have been updated and standards have increased for trouble reports. The enhancements are necessary to ensure that all telecommunications subscribers in Texas receive safe, reliable, and quality service.

In a recent rulemaking, the Commission further opened the local exchange market to competition by requiring building owners to allow competitive providers access to the building to install the equipment necessary to allow tenants to select their preferred telecommunications provider. As a result of this decision, each tenant could have a

different telephone service provider, rather than having one telephone service provider serve an entire building.

The building access rule encourages independent negotiations between the requesting provider and the property owner, and establishes procedures for resolution by the Commission in the event that an agreement cannot be reached. The rule also addresses situations in which the property owner may deny the requesting carrier access to the building for safety concerns or space constraints. The rule was developed in response to informal complaints that some providers had a difficult time accessing tenants in order to promote tenant choice.[39]

How well is this elaborate framework for competition in the provision of local exchange service working? While many of the details of the framework were determined after the point at which the most recent detailed data are available, the next chapter discusses a variety of indicators of the competitive landscape in Texas.

[39] In 1995, the Legislature enacted PURA §§54.259, 54.260, and 54.261 as part of a comprehensive package of legislation to open Texas' telecommunications market to competition. The thrust of these particular PURA sections is to promote competition in the telecommunications market by allowing a tenant under a real estate lease to choose the provider of its telecommunications services. As the competitive marketplace has developed, the need for specific rules to implement these sections has become evident. Prior to 1995, tenants in commercial buildings generally had no choice or limited choice of telecommunications utility, but the 1995 amendments to PURA changed this scheme by providing that tenants be served by the telecommunications utility of their choice. Since that time, the commission has received several informal complaints that certain telecommunications utilities have had a difficult time accessing tenants. Accordingly, the commission initiated this rulemaking proceeding to delineate the terms of access of the telecommunications utility to the property owner's property to serve a requesting tenant.

# CHAPTER 3: COMPETITION IN THE LATE 1990S

The time was ripe for market forces to assert themselves in the Texas local telephone service market in the late 1990s. As discussed in Chapters 1 and 2, the Texas Legislature, Congress, and the Commission successfully laid the groundwork for competitive access to local exchange service in Texas over the last several years. This chapter examines how CLECs responded to this new opportunity.

As of December 31, 2000, a total of 432 carriers had been granted COAs or SPCOAs from the Commission. A company that obtains either of these certificates is considered a competitive local exchange company (CLEC). Qualifying for and obtaining either certificate is the minimum action that every CLEC must take to be allowed to provide local exchange service in Texas. While 311 of the carriers currently certificated to provide competitive local exchange service in Texas obtained their certificates by December 31, 1999, the period for which the Commission requested operations data for this report, many of these CLECs did not yet have customers. Many other CLECs were small with limited financial resources, so a simple review of the number of CLECs in Texas does not give a complete picture of the competitive choices available to customers in various geographic regions of the state.

This chapter presents snapshots of the statewide market penetration of CLECs in the late 1990s and discusses the factors involved in competitive local exchange service across the various regions of Texas. A data collection instrument was designed to capture the different means of entering the service territories of ILECs: reselling telephone services, leasing UNEs, or building new plant and equipment. The Commission's ability to collect data for this report from telecommunications providers in the emerging competitive market was limited due to increasing concern among providers about the confidentiality of competitively sensitive information.[40] To obtain information from providers for this report, the Commission allowed for aggregation of data among providers and across regional areas, which limits the extent to which analysis can be achieved. Appendix H discusses the data collection instrument and the information it requested from ILECs and CLECs.

In order to capture the spread of competition across the various areas of Texas, the Commission developed a data collection instrument that would capture the

[40] A recent Attorney General letter ruling and other judicial decisions and legislative changes have heightened the reluctance on the part of private companies to provide confidential information to public agencies. The fact that the Commission received data replies from only 128 of the 311 companies certificated to provide service during the period in question is attributable in significant part to the concerns about the confidentiality of data. These concerns, and the Commission's interest, are discussed in Legislative Recommendation No. 2 in Chapter 7 of this report.

differences in the market penetration of CLECs between urban and rural areas of Texas and highlight any differences within Rural Texas.[41] Because Texas is a very diverse state, CLECs will not be entering all markets with the same vigor. The data show that CLECs focused on the Large Metro and Suburban areas of Texas in 1998 and 1999.

## Availability of Local Service Competitors

There are a number of perspectives from which to evaluate the availability of competitive providers for local exchange service. Each vantage point has its limits, but together they offer a comprehensive view.

### *TEXAS: MORE COMPETITORS THAN OTHER STATES*

At the end of 1999, Texas tied with only New York to lead the nation in number of providers, according to the FCC report, *Local Telephone Competition in the New Millennium.*[42] The FCC based its analysis on information reported by ILECs and CLECs (only those carriers serving at least 10,000 lines in a state were required to report). The state-by-state comparison is shown in Table 1. Texas and New York had at least 21 CLECs providing service, while most states reported fewer than ten CLECs.

[41] Commission staff designed the categories of data requested to show the level and growth of competition in 69 areas of Texas distinguished by level of population and geographic location. A socioeconomic profile of the various regions of Texas used for the analysis of the data in this report can be found in Appendix I.

[42] *Local Telephone Competition in the New Millennium,* Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, August 2000.

**Table 1 – Number of Reporting Local Exchange Carriers: Year-End 1999**

| State | ILECs | CLECs | Total |
|---|---|---|---|
| Alabama | 9 | 4 | 13 |
| Alaska | 4 | 2 | 6 |
| Arizona | 2 | 8 | 10 |
| Arkansas | 5 | 1 | 6 |
| California | 9 | 17 | 26 |
| Colorado | 4 | 7 | 11 |
| Connecticut | 2 | 5 | 7 |
| Delaware | 1 | 1 | 2 |
| District of Columbia | 1 | 5 | 6 |
| Florida | 8 | 17 | 25 |
| Georgia | 15 | 13 | 28 |
| Hawaii | 1 | 2 | 3 |
| Idaho | 3 | 0 | 3 |
| Illinois | 6 | 13 | 19 |
| Indiana | 7 | 7 | 14 |
| Iowa | 6 | 3 | 9 |
| Kansas | 5 | 2 | 7 |
| Kentucky | 12 | 4 | 16 |
| Louisiana | 5 | 6 | 11 |
| Maine | 5 | 2 | 7 |
| Maryland | 1 | 4 | 5 |
| Massachusetts | 1 | 9 | 10 |
| Michigan | 6 | 5 | 11 |
| Minnesota | 17 | 10 | 27 |
| Mississippi | 4 | 4 | 8 |
| Missouri | 6 | 5 | 11 |
| Montana | 7 | 2 | 9 |
| Nebraska | 6 | 1 | 7 |
| Nevada | 5 | 3 | 8 |
| New Hampshire | 5 | 2 | 7 |
| New Jersey | 3 | 8 | 11 |
| New Mexico | 3 | 2 | 5 |
| New York | 9 | 21 | 30 |
| North Carolina | 14 | 8 | 22 |
| North Dakota | 7 | 2 | 9 |
| Ohio | 9 | 10 | 19 |
| Oklahoma | 9 | 2 | 11 |
| Oregon | 8 | 6 | 14 |
| Pennsylvania | 11 | 13 | 24 |
| Puerto Rico | 1 | 0 | 1 |
| Rhode Island | 1 | 1 | 2 |
| South Carolina | 14 | 1 | 15 |
| South Dakota | 6 | 2 | 8 |
| Tennessee | 14 | 7 | 21 |
| **TEXAS** | **15** | **21** | **36** |
| Utah | 3 | 2 | 5 |
| Vermont | 4 | 1 | 5 |
| Virginia | 7 | 7 | 14 |
| Washington | 9 | 9 | 18 |
| West Virginia | 2 | 1 | 3 |
| Wisconsin | 10 | 8 | 18 |
| Wyoming | 2 | 1 | 3 |
| Nationwide – Total without duplication** | 168 | 81 | 249 |

* Each report represents all of a company's operations in a given state. Carriers with both ILEC and CLEC operations in the same state provide separate reports.

**Not column totals; numbers represent total number of carriers nationwide (some operate in more than one state).

## NUMBERS OF COMPETITORS BY CITY

### The HB 1777 Data Collection Instrument

The Commission has available a new source of data that is precise in comparing the actual number of choices for similar service a customer has in a given locale. These data are that which must be reported by cities on a quarterly basis in order to comply with HB 1777 (relating to a uniform method for compensating municipalities for obtaining right-of-way access).[43] This data set reveals which providers are providing service in a given Texas municipality in the following service category groupings:

- **Residential Services**: analog and/or digital residential switched access lines, including point-to-point private lines, whether residential or non-residential, only to the extent such lines provide burglar alarm or other similar security services.
- **Business Services**: analog and digital non-residential switched access lines.
- **Point-to-point (Data) Services**: all other point-to-point private lines, whether residential or non-residential, that are not otherwise included within the residential service category.

For the purposes of complying with HB 1777, a telecommunications provider must report the number of lines it provides in each of the three categories above in each city it serves. The basis for counting the number of choices customers have in a given city for purposes of creating the maps in Figures 1-3 was to count the number of providers reporting the above data in that city. In other words, a provider reporting that it provides some services in the residential services category to at least some lines in a town is assumed to be one of the total number of providers operating in that town. The data reported from 1,222 cities supply the data points that are used to make each map.

[43] LOC. GOV'T. CODE ANN. §§ 283.001-283.058 (Vernon 1999 and Supp. 2000).

## Geographic Distribution of Providers, by Type of Service

### *Residential Services*

In Figure 1, which maps CLECs that offer residential services, note that all small circles, or "zeroes," indicate town locations where there is no choice available for an alternative provider of residential services. The open triangles indicate towns where there is a small range of choices available. The gray shaded areas indicate towns where the number of providers is sufficient to offer a chance of competitive choice. The black circles indicate towns where there is an abundant choice of providers for residential services. As the map indicates, competition has clustered in population centers and in East Texas.

### *Business Services*

An examination of the corresponding data for business in Figure 2 shows that the competition clusters in similar areas, but the providers are not as numerous.

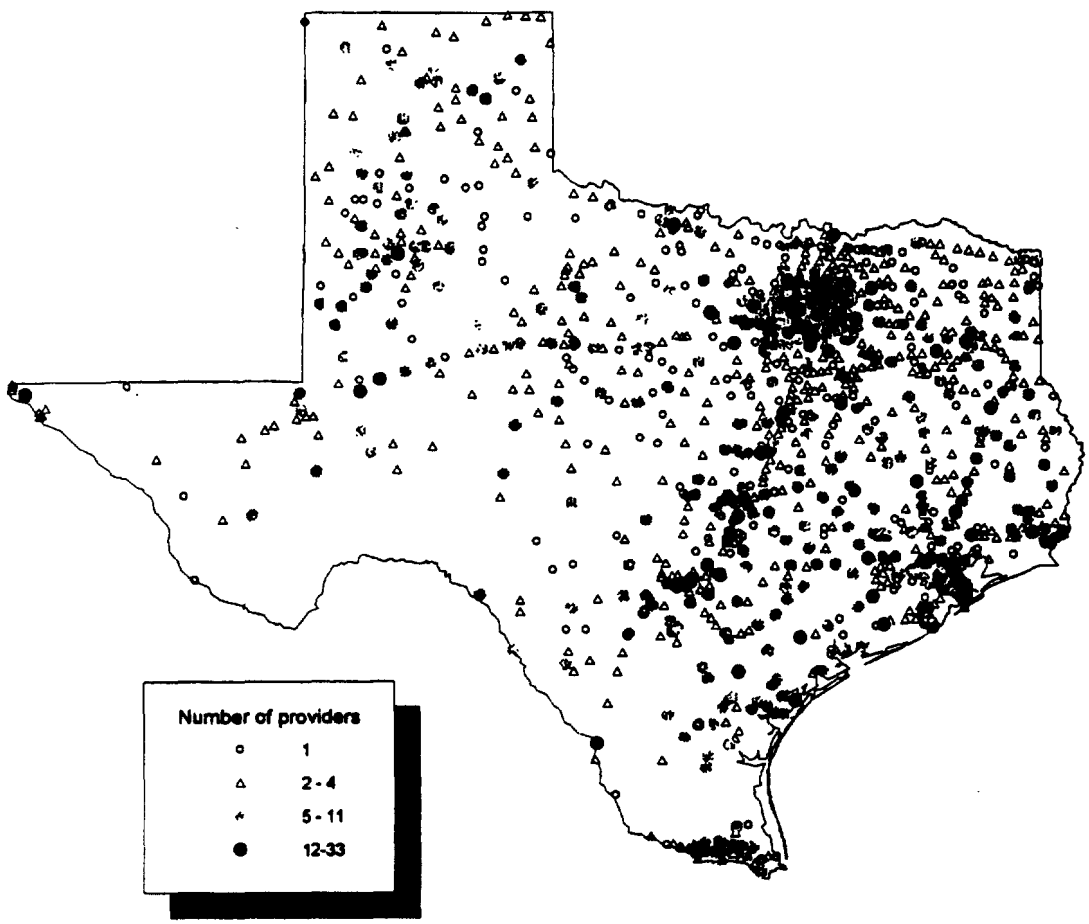
### *Point-to-Point Services*

Data services, though not a big part of the telecommunications market in the past, will be increasingly important to telecommunications providers and customers. According to a study by J. P. Morgan Securities, data services nationwide will grow from $31.4 million in 1999 to a projected $90.9 million in 2005.[44] The demand for data services likely will be centered in high-density, higher income areas of Texas, where many CLECs have focused their efforts in the past two years, as shown in Figure 3.

The results of the HB 1777 data collection instrument show that customers have a good selection of data services providers in Houston, Dallas, Austin, San Antonio and, to a lesser extent, East Texas.

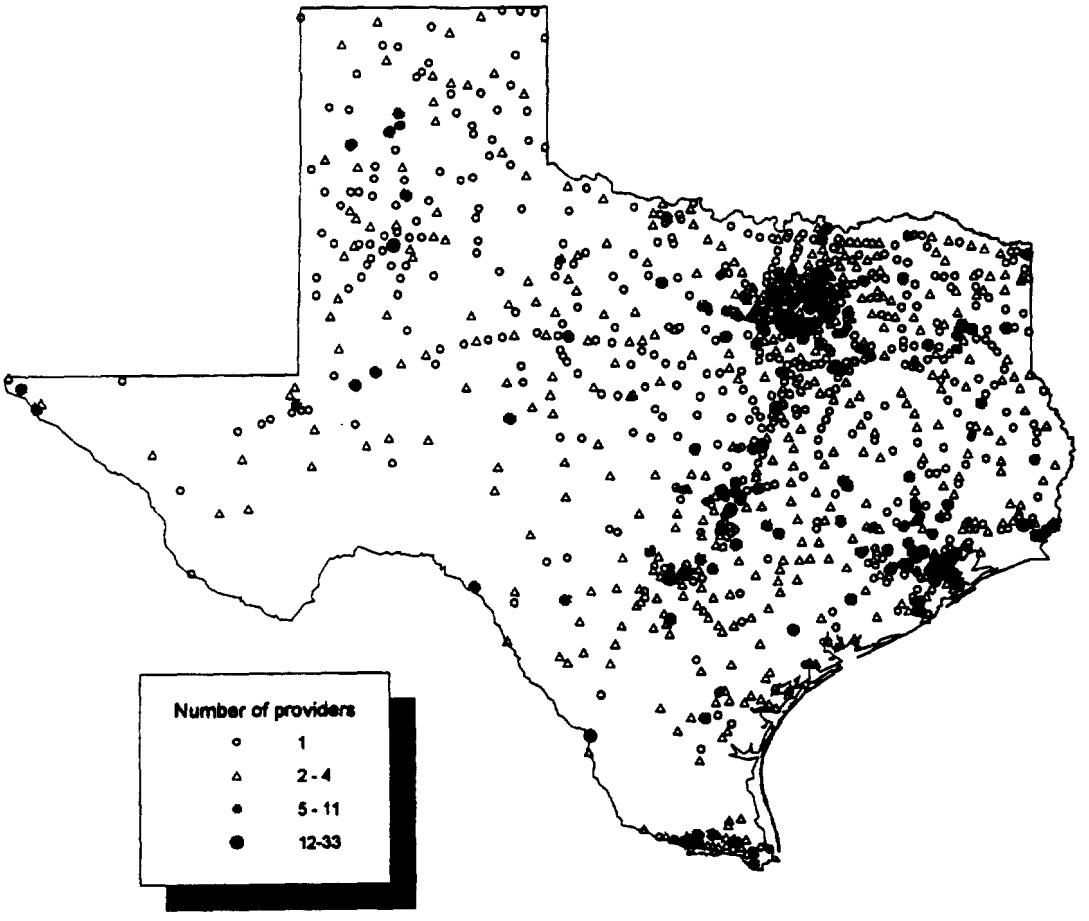
[44] J. P. Morgan Securities, *Industry Analysis: Telecom Services*, at 4 (Sept. 8, 2000).

## Figure 1 – Residential Service Providers



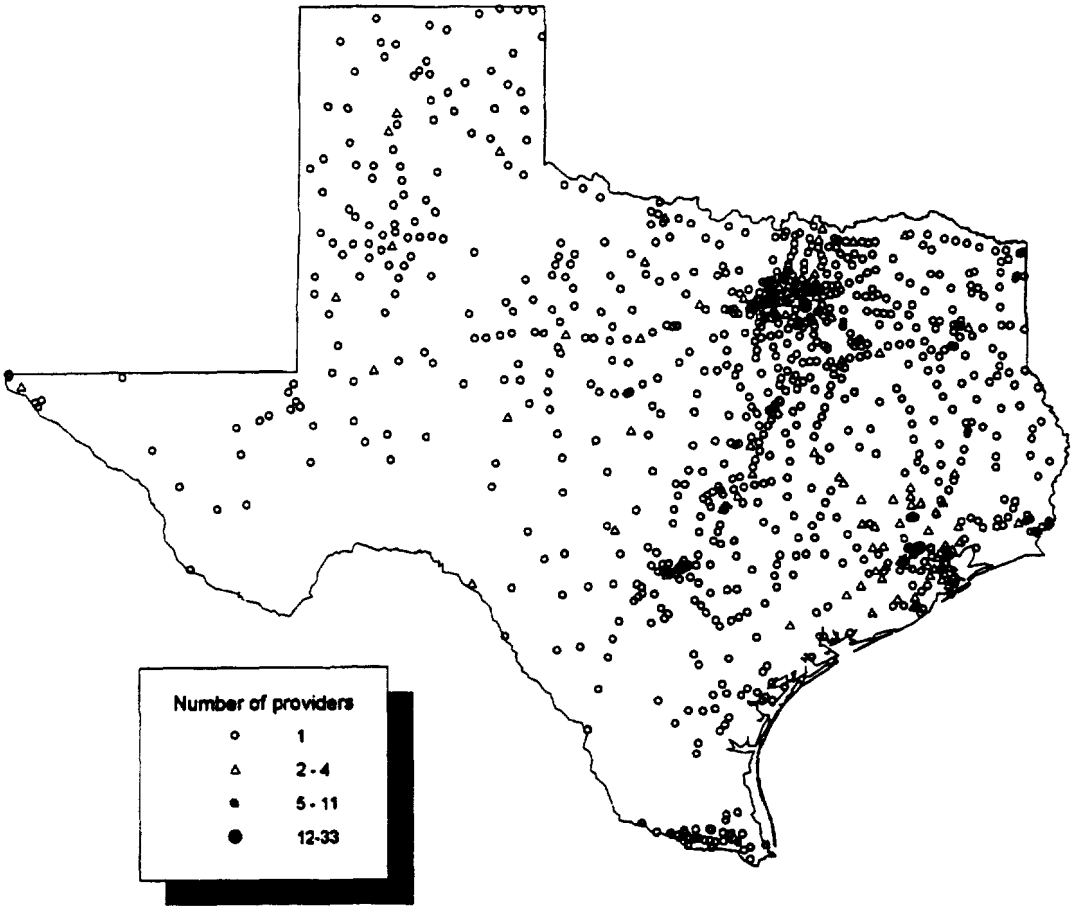

Source: Public Utility Commission HB 1777 Data Collection Instrument

**Figure 2 – Business Service Providers**




Source: Public Utility Commission HB 1777 Data Collection Instrument

**Figure 3 – Data Service Providers**




Source: Public Utility Commission HB 1777 Data Collection Instrument

### *Analysis of the Histogram Data*

The histogram data that supported the above figures is shown in the table below and reveals a few more insights.

**Table 2 – Number of Providers for Texas Towns**

| Number of providers in a given town | Number of Texas towns with that many providers, by type of service | | |
|---|---|---|---|
| | Residential Services | Business Services | Data Services |
| 1 | 257 | 554 | 843 |
| 2 | 229 | 273 | 77 |
| 3 | 178 | 133 | 27 |
| 4 | 143 | 65 | 3 |
| 5 | 92 | 43 | 3 |
| 6 | 58 | 30 | 0 |
| 7 | 53 | 23 | 3 |
| 8 | 42 | 8 | 0 |
| 9 | 30 | 12 | 1 |
| 10 | 32 | 11 | 0 |
| 11 | 25 | 7 | 0 |
| 12 | 18 | 9 | 1 |
| 13 | 14 | 4 | 1 |
| 14 | 12 | 1 | 0 |
| 15-19 | 29 | 5 | 0 |
| 20 or more | 10 | 5 | 0 |

Source: Public Utility Commission of Texas HB 1777 Data Collection Instrument

This data set shows that residents in a good number of cities have a very sizeable number of choices of CLECs. Data show that ten cities have twenty or more CLECs serving residential customers, and residential customers in 130 towns and cities have ten to nineteen CLECs from which to choose. In contrast, residential customers in 257 towns[45] have no CLECs, and another 407 towns have only one or two CLECs from which to choose.

The trend of limited choice in providers for more specialized services can be seen in the point-to-point data. Ninety percent of all municipalities surveyed do not have competition in data services. Residents in 263 cities have no certificated providers of data services.[46] Residents in 843 towns (69 percent of all municipalities surveyed) only have one choice of provider for such services, while residents in 104 towns have a choice of two or three providers for these services.

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[45] This table is based on the same 1222 data points that were the basis for the maps. However, an additional 209 cities reported data to the Commission that did not have the necessary census codes to be included in the map, and therefore are not included in the map data set. Most of them had only ILEC service available and no choice of CLECs for any of the service types.

[46] There may be providers offering point to point data services that are not required to report to the Commission because the reporting requirement is made only of certificated providers, and it is not technically necessary to obtain a certificate from the Commission in order to provision point-to-point services.

## CLECs IN TEXAS BY METRO SIZE AND GEOGRAPHIC REGION

Another measure of geographic availability may be seen in the responses of the CLECs that responded to the data request for this report. Table 3 shows the number of competitive local carriers that are providing service to customers in each of the geographic areas.

Factors of population growth, economic growth, and population density appear to be important in the decisions of CLECs to invest in or resell voice telephony facilities in a given area of Texas, as a sizeable number of competitors are available to Texas residents in counties with populations over 100,000. The Large Metropolitan areas, which comprise nearly half of the Texas population and have high population densities, have by far the heaviest concentrations of CLECs. The Suburban and Small and Medium Metro counties have about the same numbers of choices in providers as each other, even though the former group has twice the population.

Even in the smallest Rural counties, the responses show that at least one competitive provider is available to at least one county in that Council of Government. Many Rural areas have two, three, or more CLECs in addition to an ILEC. Some of these Rural competitors, however, may be aimed at customers with poor credit histories and are not vying for the average local customer's business.

## Table 3 – CLECs in Texas by Size and Region

| Regional Group | Population Category | Number of CLECs (1999) |
|---|---|---|
| Large Metro (Group 1) | Over 600,000 | 40 |
| Suburban (Group 2) | Near Metros | 22 |
| Small and Medium Metro (Group3) | Other Over 100,000 | 23 |
| Alamo Area Council of Governments | 20,001-100,000 | 10 |
| Ark-Tex Council of Governments | 20,001-100,000 | 7 |
| Brazos Valley Council of Governments | 20,001-100,000 | 8 |
| Capital Area Planning Council | 20,001-100,000 | 7 |
| Central Texas Council of Governments | 20,001-100,000 | 8 |
| Coastal Bend Council of Governments | 20,001-100,000 | 6 |
| Deep East Texas Council of Governments | 20,001-100,000 | 7 |
| East Texas Council of Governments | 20,001-100,000 | 7 |
| Golden Crescent Regional Planning Commission | 20,001-100,000 | 7 |
| Heart of Texas Council of Governments | 20,001-100,000 | 6 |
| Houston-Galveston Area Council | 20,001-100,000 | 10 |
| Middle Rio Grande Development Council | 20,001-100,000 | 7 |
| North Central Texas Council of Governments | 20,001-100,000 | 10 |
| Panhandle Regional Planning Commission | 20,001-100,000 | 6 |
| Permian Basin Regional Planning Commission | 20,001-100,000 | 5 |
| South Plains Association of Governments | 20,001-100,000 | 6 |
| South Texas Development Council | 20,001-100,000 | 4 |
| Texoma Council of Governments | 20,001-100,000 | 7 |
| West Central Texas Council of Governments | 20,001-100,000 | 5 |
| Alamo Area Council of Governments | 5,001-20,000 | 6 |
| Ark-Tex Council of Governments | 5,001-20,000 | 4 |
| Brazos Valley Council of Governments | 5,001-20,000 | 5 |
| Capital Area Planning Council | 5,001-20,000 | 5 |
| Central Texas Council of Governments | 5,001-20,000 | 6 |
| Coastal Bend Council of Governments | 5,001-20,000 | 7 |
| Concho Valley Council of Governments | 5,001-20,000 | 4 |
| Deep East Texas Council of Governments | 5,001-20,000 | 7 |
| East Texas Council of Governments | 5,001-20,000 | 6 |
| Golden Crescent Regional Planning Commission | 5,001-20,000 | 7 |
| Heart of Texas Council of Governments | 5,001-20,000 | 8 |
| Houston-Galveston Area Council | 5,001-20,000 | 8 |
| Middle Rio Grande Development Council | 5,001-20,000 | 4 |
| North Central Texas Council of Governments | 5,001-20,000 | 6 |
| North Texas Regional Planning Commission | 5,001-20,000 | 7 |
| Panhandle Regional Planning Commission | 5,001-20,000 | 7 |
| Permian Basin Regional Planning Commission | 5,001-20,000 | 7 |
| Rio Grande Council of Governments | 5,001-20,000 | 3 |
| South Plains Association of Governments | 5,001-20,000 | 6 |
| South Texas Development Council | 5,001-20,000 | 5 |
| West Central Texas Council of Governments | 5,001-20,000 | 8 |
| Ark-Tex Council of Governments | 1-5,000 | 3 |
| Central Texas Council of Governments | 1-5,000 | 4 |
| Coastal Bend Council of Governments | 1-5,000 | 3 |
| Concho Valley Council of Governments | 1-5,000 | 7 |
| Middle Rio Grande Development Council | 1-5,000 | 6 |
| North Texas Regional Planning Commission | 1-5,000 | 6 |
| Panhandle Regional Planning Commission | 1-5,000 | 9 |
| Permian Basin Regional Planning Commission | 1-5,000 | 5 |
| Rio Grande Council of Governments | 1-5,000 | 4 |
| South Plains Association of Governments | 1-5,000 | 5 |
| South Texas Development Council | 1-5,000 | 2 |
| West Central Texas Council of Governments | 1-5,000 | 6 |

Source: Public Utility Commission Data Request 2000 Responses

## NUMBERING CODE INDICATORS OF COMPETITORS

One measure of competitive availability can be found in the numbering prefixes (NXX codes) acquired by competitive carriers. Numbering codes are used to route and rate the switched telephone traffic within the nationwide network and ensure that a call is delivered to the telephone switch serving the customer being called. According to FCC data, Texas had 80 local service competitors holding numbering codes in mid-2000, up from 32 local service competitors in mid-1999. Those codes were geographically dispersed within Texas LATAs, as shown in Table 4.

**Table 4 – Local Service Competitors by LATA**

| LATA | 4th Qtr 1997 | 4th Qtr 1998 | 2nd Qtr 1999 | 3rd Qtr 2000 |
|---|---|---|---|---|
| Abilene | 0 | 1 | 1 | 6 |
| Amarillo | 2 | 4 | 4 | 10 |
| Austin | 9 | 13 | 13 | 29 |
| Beaumont | 0 | 1 | 2 | 8 |
| Brownsville | 0 | 1 | 1 | 7 |
| Corpus Christi | 2 | 4 | 5 | 8 |
| Dallas | 14 | 25 | 24 | 48 |
| El Paso | 1 | 3 | 3 | 5 |
| Hearne | 0 | 1 | 1 | 4 |
| Houston | 13 | 19 | 19 | 43 |
| Longview | 1 | 2 | 3 | 9 |
| Lubbock | 0 | 3 | 4 | 8 |
| Midland | 0 | 1 | 1 | 4 |
| San Angelo | 0 | 1 | 1 | 3 |
| San Antonio | 8 | 11 | 11 | 28 |
| Waco | 1 | 3 | 3 | 8 |
| Wichita Falls | 0 | 1 | 1 | 6 |

Sources: *Local Competition: August 1999*, Federal Communications Commission, Industry Analysis Division, Common Carrier Bureau; Analysis of Local Exchange Routing Guide.

The largest four metro areas in Texas have been the favorite destinations of CLECs. Dallas and Houston had between 40 and 50 CLECs in their markets, and Austin and San Antonio had about almost 30 CLECs in their markets. El Paso, despite being a Large Metro area, had only five CLECs in its market, fewer than cities such as Beaumont, Longview, or Waco, which have a fraction of El Paso's population. Lower *per capita* income and mediocre business prospects might be responsible for this lack of interest in El Paso. The data indicate that a large number of CLECs burst onto the scene in 1998 and again in the first half of 2000.

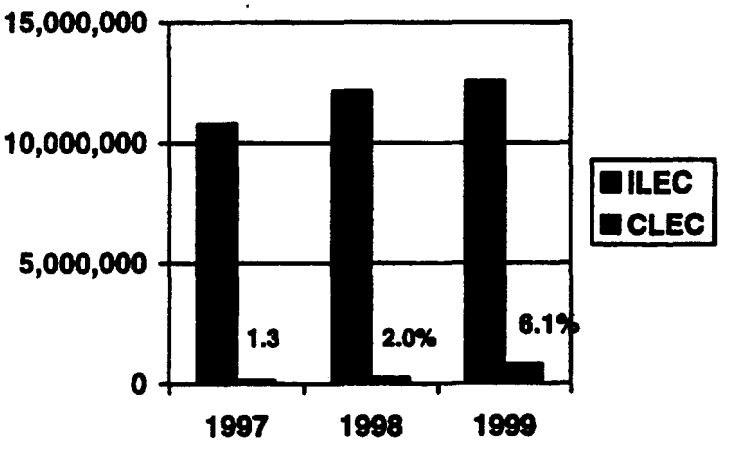
# Market Penetration by Competitive Providers

Fifty-nine ILECs responded to the Commission's data request. Out of the 311 CLECs certificated to provide service in Texas during at least some part of the 1998-1999 calendar period, 128 responded to the Commission's data request. Of the CLECs responding, 36 indicated that they were not providing any local exchange services during the period in question. The data in this analysis therefore represent the reporting of 92 CLECs providing local exchange services in Texas at year-end 1999. Not all of these carriers provided services in 1998.[47]

## *CLEC Access Lines and Revenues*

Texas has seen the beginnings of competition in local exchange service, shown by the growth in the number of lines and the revenues for CLECs. Starting from a very low level, CLECs have been increasing market share in Texas in the past three years. Market share of CLECs for access lines rose from 1.3 percent in 1997 to 6.1 percent in 1999, and in revenues the market share for CLECs rose from 1.6 percent to 9.0 percent.

**Figure 4 – Number of Lines Provided by ILECs and CLECs**




[47] It should be noted that while the CLEC data are good for illustrative purposes in this report, they do not appear to be precise. In some instances, it is clear that the CLECs provided incomplete or incorrect information in their geographic reporting. Secondly, the method of aggregating the data may lead to an invalid conclusion concerning competition throughout the entire aggregated region, and any analysis must recognize that telephone exchanges were merged into counties, and counties into larger groupings, based on size and region. As for the number of CLECs reporting, however, the data set does achieve critical mass. While 183 of the 311 CLECs certificated for at least part of the data period did not report, 65 of those do not have interconnection agreements and can therefore be assumed to not have sizeable operations, if any. Forty-two more of those did not get their interconnection agreement until after June 1999, and can therefore be assumed to not have had sizeable operations before the end of the data period. That leaves 76 CLECs failing to report that potentially had operations in the data period, based on their certification and interconnection agreement dates, while 92 CLECs with operations in the data period did report. Within the data set of 128 CLECs that did respond, 43 CLECs had both their certificates and interconnection agreements in order by end of 3rd quarter 1998, while a total of 76 CLECs had these items in order by 3rd quarter 1999.

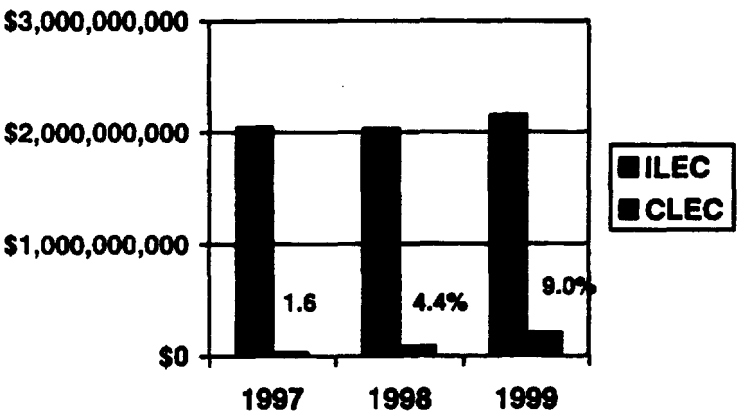
**Table 5 – Comparison of ILEC and CLEC Lines and Revenues**

| | 1997 | 1998 | 1999 |
|---|---|---|---|
| ILEC Access Lines | 10,767,173 | 12,135,113 | 12,532,003 |
| CLEC Access Lines | 146,185 | 248,166 | 810,259 |
| Total Access Lines | 10,913,358 | 12,383,279 | 13,305,884 |
| CLEC Percentage of Lines | 1.3% | 2.0% | 6.1% |
| | | | |
| ILEC Local Revenues | $2,044,664,321 | $2,160,771,998 | $2,287,287,649 |
| CLEC Local Revenues | 32,735,793 | 99,364,239 | 227,326,666 |
| Total Local Revenues | $2,077,400,114 | $2,260,136,236 | $2,514,614,315 |
| CLEC Percentage of Revenues | 1.6% | 4.4% | 9.0% |

Source: 1999 Scope of Competition Report; Data Request 2000 Responses

Similarly, the CLEC share of revenues has more than doubled in 97-98, and doubled again by year-end 1999, as shown in Figure 5.

**Figure 5 – Comparison of ILEC and CLEC Local Revenues**




Displayed in Table 6 are the number of residential and business lines provided by CLECs, categorized by geography and county size. In terms of lines in 1999, CLECs captured 8.2 percent of the Large Metro market, 11.4 percent of the Suburban market, and 5.3 percent of the market in Medium and Small Metro areas. This table clearly reveals the emergence of local exchange competition, first in the Large Metropolitan areas in 1998, followed by the beginnings of competition in counties with under 100,000 population.

**Table 6 – CLEC Lines**

| County Size | 1998 | | 1999 | |
|---|---|---|---|---|
| | CLEC Lines | % of Total State Market | CLEC Lines | % of Total State Market |
| Large Metro (Group 1) | 179,921 | 3.0 | 530,393 | 8.2 |
| Suburban (Group 2) | 27,136 | 3.1 | 115,644 | 11.4 |
| Small/Medium Metro (Group 3) | 25,491 | 1.4 | 102,685 | 5.3 |
| Rural; 20,001 – 100,000 | 10,015 | 0.3 | 36,359 | 1.2 |
| Rural; 5,001 – 20,000 | 3,712 | 0.5 | 14,864 | 1.9 |
| Rural; 1 – 5,000 | 1,891 | 1.5 | 10,314 | 7.6 |
| Total CLEC | 248,166 | 2.0 | 810,259 | 6.1 |

Source: Public Utility Commission of Texas Data Request 2000 Responses

While the four largest ILECs in Texas – SWBT, Verizon, Sprint/Centel and Sprint/United – have signed significant numbers of interconnection agreements with competitive carriers under the FTA, the remaining ILECs have entered into relatively few agreements. The agreements involving the smaller ILECs, which would be predominately in Rural areas, are strictly resale agreements, usually with no wholesale discounts. The limited number and extent of these agreements results from two factors: (1) relatively little interest on the part of other carriers to compete in less urbanized areas, and (2) the partial exemption of rural telephone companies from the interconnection requirements of FTA § 251(c).

Table 7 displays the revenues from residential and business customers by ILECs and CLECs, categorized by geography and county size. (For a breakdown of each of the 69 areas listed in the data collection instrument, see Appendix J.) CLECs appeared to be providing higher-value local service in the Large Metro and Suburban areas of Texas than in the state as a whole. In terms of revenues in 1999, CLECs captured 11.7 percent of the Large Metro market, 15.4 percent of the Suburban market, and 5 percent of the market in Medium and Small Metro areas. CLEC revenues comprise less than 4 percent of all revenues by local exchanges in Rural areas.

**Table 7 – CLEC Revenues**

| County Size | 1998 | | 1999 | |
|---|---|---|---|---|
| | CLEC Revenue | % of Total State Market | CLEC Revenue | % of Total State Market |
| Large Metro (Group 1) | 56,098,286 | 4.7 | 156,742,378 | 11.7 |
| Suburban (Group 2) | 13,636,940 | 8.9 | 27,280,185 | 15.4 |
| Small/Med. Metro (Gr. 3) | 10,539,058 | 3.3 | 17,779,206 | 5.0 |
| Rural; 20,001 – 100,000 | 17,925,710 | 3.8 | 22,833,530 | 4.4 |
| Rural; 5,001 – 20,000 | 1,106,643 | 1.1 | 2,332,361 | 2.2 |
| Rural; 1 – 5,000 | 57,602 | 0.4 | 359,007 | 2.4 |
| Total CLEC | 99,364,239 | 4.4 | 227,326,666 | 9.0 |

Source: Public Utility Commission Data Request 2000 Responses